

REMARKS

Claims 1-3, 5, 7, and 10-15 are currently pending. The Examiner has rejected claims 1, 2, and 5 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,580,374 to Okumura et al (“Okumura”). The Examiner has also rejected claims 10, 11, and 15 under 35 U.S.C. § 103(a) as being unpatentable over Okumura. In addition, the Examiner has rejected claims 3, 7, and 12-14 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Okumura. The following remarks are considered by Applicants to overcome each of the Examiner's outstanding rejections. An early Notice of Allowance is therefore requested.

I. SUMMARY OF RELEVANT LAW

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. The determination of obviousness rests on whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. In determining obviousness, four factors should be weighed: (1) the scope and content of the prior art, (2) the differences between the art and the claims at issue, (3) the level of ordinary skill in the art, and (4) whatever objective evidence may be present. Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. The Examiner carries the burden under 35 U.S.C. § 103 to establish a prima facie case of obviousness and must show that the references relied on teach or suggest all of the limitations of the claims.

II. REJECTION OF CLAIMS 1, 2, AND 5 UNDER 35 U.S.C. § 102(B) BASED ON OKUMURA

On page 2 of the current Office Action, the Examiner rejects claims 1, 2, and 5 under 35 U.S.C. § 102(b) as being anticipated by Okumura. This rejection is respectfully traversed and believed overcome in view of the following discussion.

With respect to this rejection, the Examiner contends that:

“Okumura et al teach an aqueous ink composition comprising 2,5-dimercapto-1,3,4-thiadiazole or its salt in the amount 0.01 to 10 percent by weight, a colorant in the amount of 0.05 to 30 percent by weight, water in the amount of 40 to 90 percent by weight and a water-soluble organic solvent in the amount of 40 percent by weight or less (abstract and col. 1 lines 53-55). The reference further teaches that the colorant may be a pigment (col. 1 lines 63-66 and col. 2 lines 1-7). The water-soluble organic solvent includes polyethylene glycol and diglycerol (col. 2 lines 50+). **It is the position of the Examiner that similar compositions with similar amounts would provide clear and convincing evidence that would lead one to conclude that the solid matter can be redissolved in the ink would be the same as claimed by applicant.** The composition as taught by Okumura et al appears to anticipate the claimed invention.”

Office Action (4/21/06), P. 2 (emphasis added). However, this misconstrues the teachings of Okumura. Specifically, as is described in detail below, Okumura never teaches a composition “wherein the ink is solidified into a solid matter when the water contained in the ink is evaporated, and the solid matter is redissolved in the ink which is not solidified.” Application, P. 2, Claim 1. As such Applicants respectfully asserts that the Examiner’s rejection stands in error.

A. CLAIM 1

Claim 1 of the current application requires:

An ink for ink-jet recording comprising:
a pigment;
water; and
diglycerol;
wherein the ink is solidified into a solid matter when the water contained in the ink is evaporated, and the solid matter is redissolved in the ink which is not solidified.

8/4/05 Response to 4/19/05 Office Action, P. 2 (emphasis added).

Okumura, however, never discloses an ink “wherein the ink is solidified into a solid matter when the water contained in the ink is evaporated, and the solid matter is redissolved in the ink which is not solidified.” As disclosed in the Specification of the current Application, this limitation can be controlled by the amounts of the different components of the ink and their ratios to one another. Application (as published), P.1, ¶ [0009]; P. 2, ¶ [0021]. For example, problems arise in redissolving the ink when the total amount of water-soluble organic solvent contains too small a percentage of polyethylene glycerol or diglycerol. *Id.* Furthermore, the ink solidification is effected when the ink contains too much polyethylene glycol or diglycerol as compared to the pigment. *Id.* Therefore, it is not inherent that every ink composition that contains a pigment, water, and diglycerol will satisfy the above limitation.

An example of such an ink is Reference Examples 4 and 5 of the present Application. Both Reference Examples 4 and 5 contain a pigment, water, and diglycerol. Application (as published), P. 4-5, ¶¶ [0036]-[0037], Table 1. In fact, as is seen in Table 1, the diglycerol contained in the Comparative Example 5 is not less than 10% by weight with respect to a total amount of the water soluble organic solvent. In fact, the diglycerol contained in the Comparative Example 5 is not less than 50% by weight with respect to a total amount of the water soluble organic solvent. However, as seen from Table 1, neither Comparative Example 4 nor Comparative Example 5 satisfy the claim language that “the ink is solidified into a solid matter when the water contained in the ink is evaporated, and the solid matter is redissolved in the ink which is not solidified.” These are two actual examples that illustrate that it is not inherent that every ink composition that contains a pigment, water, and diglycerol will satisfy the above limitation.

Furthermore, by arguing that similar compositions with similar amounts would provide clear and convincing evidence that would lead one to conclude that the solid matter

can be redissolved in the ink would be the same as claimed by applicant, the Examiner is essentially arguing that this limitation is inherently disclosed. The MPEP contains clear instructions on establishing inherency. “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” MPEP § 2112 (quoting *Ex parte Levy*, 17 USPQ2d 1451, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)) (internal quotations omitted). “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” MPEP § 2112 (citing *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993)) (emphasis in original). “Also, ‘[a]n invitation to investigate is not an inherent disclosure’ where a prior art reference ‘discloses no more than a broad genus of potential applications of its discoveries.’” MPEP § 2112 (quoting *Metabolife Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1367 (Fed. Cir. 2004)). “‘A prior art reference that discloses a genus still does not inherently disclose all species within that broad category’ but must be examined to see if a disclosure of the claimed species has been made or whether the prior art reference merely invites further experimentation to find the species.” MPEP § 2112 (quoting *Metabolife Labs., Inc.*, 370 F.3d at 1367).

Contrary to MPEP instruction, the Examiner has provided no basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic **necessarily** flows from the teachings of the applied prior art. The Examiner merely states that “[i]t is the position of the Examiner” that Okumura inherently discloses the claim limitation. Such a declaration without any factual support and/or technical reasoning fails to satisfy the MPEP requirements for establishing inherency. As such, Applicants respectfully assert that the examiner has failed to establish that Okumura inherently discloses

the ink of Claim 1 “wherein the ink is solidified into a solid matter when the water contained in the ink is evaporated, and the solid matter is redissolved in the ink which is not solidified.”

Examiner asserts that this claim limitation is immaterial to the composition as currently claimed because this limitation is drawn to the properties of the composition after the use of said composition. Office Action (4/21/06), P. 4. Applicants respectfully disagree. The claimed property of the ink is present before the use of the ink. It only manifests itself in an observable form **during** use of the ink. The composition of the ink does not change during the period before its use or during its use. Since nothing in the ink changes during use, this is a property that the ink has **before** it is used. It is not a property that somehow appears out of nowhere once the ink is used. Therefore, Applicants respectfully assert that Examiner’s position, that the claim limitation is immaterial, is inapplicable to the present Application.

For Okumura to anticipate Claim 1 of the current Application, Okumura must disclose an ink that satisfies all the limitations of Claim 1. However, Okumura never discloses any example which contains diglycerol and satisfies the above limitation either explicitly or inherently. In fact, the above limitation is never disclosed in Okumura at all. Okumura only discloses that the use of a solvent “can improve the nondrying properties of the ink.” Okumura, Col. 3, Lns. 5-9. As such, Okumura does not contain each and every element as set forth in Claim 1. Therefore, Applicants respectfully assert that Examiner has failed to establish a prima facie case of anticipation of independent Claim 1 and corresponding claims 2 and 5 because they are dependant from Claim 1. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 1, 2, and 5 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,580,374 to Okumura et al.

III. REJECTION OF CLAIMS 10, 11, AND 15 UNDER 35 U.S.C. § 103(A) BASED ON OKUMURA

On page 3 of the current Office Action, the Examiner rejects claims 10, 11, and 15 under 35 U.S.C. § 103(a) as being unpatentable over Okumura. This rejection is respectfully traversed and believed overcome in view of the following discussion.

With respect to this rejection, the Examiner contends that:

“[I]t would have been obvious to one of ordinary skill in the art to use the combination of polyethylene glycol and diglycerol as claimed by applicant as Okumura et al also discloses the use of polyethylene glycol and diglycerol but shows no example incorporating them.

It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose ... [T]he idea of combining them flows logically from their having been individually taught in the prior art. In re Kerkhoven, 626 F. 2d 846, 850, 250 USPQ 1 069: 1072 (CCPA 1980). See MPEP 2144.06.”

Office Action (10/24/05), P. 3 (emphasis added). However, this misapplied to the current application, because “the third composition” in the current Application is **not** to be used for the very same purpose as taught by the prior art.

A. CLAIM 10

Claim 10 claims “An ink cartridge comprising the ink for ink-jet recording as defined in claim 1.” While Examiner asserts that this claim is obvious over Okumura, no reason for obviousness is given. The only basis for an obviousness rejection would have to rely on the Examiner’s assertion of anticipation of Claim 1, since Claim 10 is dependant from Claim 1. However, as discussed above, Claim 1 is not anticipated by Okumura and is allowable. As Claim 10 is dependant from Claim 1, Claim 10 must be allowable since there is no basis for any obviousness rejection. Therefore, Applicants respectfully request that Examiner remove the rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,580,374 to Okumura et al.

B. CLAIM 11

Claim 11 of the current application requires:

An ink for ink-jet recording comprising:
a pigment;
water;
polyethylene glycol; and
diglycerol.

8/4/05 Response to 4/19/05 Office Action, P. 3 (emphasis added).

As discussed above, Okumura only discloses that the use of a solvent “can improve the nondrying properties of the ink” when strike-through of the ink occurs, and drying is made difficult, when writing on paper. Okumura, Col. 3, Lns. 5-9. However, certain water-soluble organic solvents may be used for two additional purposes as well: (1) To improve the resolubility of the water base pigment ink; (2) To quicken the drying speed on the paper surface. Application (as published), P. 2, ¶¶ [0016]-[0020].

Polyethylene glycol and diglycerol are specifically described in the Specification of the current Application as being able to improve the resolubility of the water base pigment ink. *Id.* It is for this purpose that they are combined to form a “third composition”. They are not combined “for the very same purpose” disclosed in Okumura of improving ink drying when writing on paper. Therefore, while Okumura may have disclosed the use of both polyethylene glycol and diglycerol for a single purpose (i.e. improving ink’s nondrying properties), this is not the purpose for which these two compounds are combined in the current Application. In fact, there is no teaching in Okumura to use either compound to improve the resolubility of the water base pigment ink, let alone a teaching to combine the two compounds for that purpose. As such, the portion of the MPEP cited by the Examiner to support Examiner’s case for prima facie obviousness does not apply to the Claim 11 of the current application.

As such, Applicants respectfully assert that Examiner has failed to establish a prima facie case of obviousness of independent Claim 11 and corresponding Claim 15 because they are dependant from Claim 11. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 11 and 15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,580,374 to Okumura et al.

IV. REJECTION OF CLAIMS 3, 7, AND 12-14 UNDER 35 U.S.C. § 102(B) OR, IN THE ALTERNATIVE, UNDER 35 U.S.C. § 103(A) BASED ON OKUMURA

On page 3 of the current Office Action, the Examiner rejects claims 3, 7, and 12-14 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Okumura. This rejection is respectfully traversed and believed overcome in view of the following discussion.

A. CLAIM 3 UNDER 102(B) AND 103(A)

Claim 3 is dependent upon Claim 1. As mention above, Claim 1 is allowable. Since Claim 1 is allowable, so must be Claim 3. In addition, Claim 3 specifies that the “weight ratio of the diglycerol with respect to the pigment is not more than 3.” 8/4/05 Response to 4/19/05 Office Action, P. 2. Okumura never discloses any relation between the amount of diglycerol in the ink and the amount of pigment in the ink, nor does it disclose any example that satisfies this claim limitation.

Okumura never discloses any range for the amount of diglycerol. However, Examiner does contend that Okumura teaches:

“an aqueous ink composition comprising 2,5-dimercapto-1,3,4-thiadiazole or its salt in the amount 0.01 to 10 percent by weight, a colorant in the amount of 0.05 to 30 present by weight, water in the amount of 40 to 90 percent by weight and a water-soluble organic solvent in the amount of 40 percent by weight or less (abstract and col. 1 lines 53-55). The reference further teaches that the colorant may be a pigment (col. 1 lines 63-66 and col. 2 lines 1-7). The water-soluble organic solvent includes polyethylene glycol and diglycerol (col. 2 lines 50+).”

Office Action (4/21/06), P. 2 (emphasis added).

In asserting that Claim 3 is anticipated, Examiner, in essence, contends that Okumura discloses that the weight ratio of the diglycerol with respect to the pigment is in the range of 0 to 800 (0/30 to 40/0.05), or, in other words, not more than 800. The current Application claims the narrow range of not more than 3.

As such, Examiner, in effect, argues that while not all combinations of inks disclosed in Okumura fall within the narrowly claimed ratio range of not more than 3 of the current application, some combinations do fall within that range. However, Okumura never discloses any specific examples falling within the claimed narrow range.

The MPEP provides instruction for situations like this:

When the prior art discloses a range which touches, overlaps or is within the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. ... If the claims are directed to a narrow range, the reference teaches a broad range, and there is evidence of **unexpected results** within the claimed narrow range ... it may be reasonable to conclude that the narrow range is not disclosed with "sufficient specificity" to constitute an anticipation of the claims. The unexpected results may also render the claims unobvious. The question of "sufficient specificity" is similar to that of "clearly envisaging" a species from a generic teaching. See MPEP § 2131.02. A 35 U.S.C. 102/103 combination rejection is permitted if it is unclear if the reference teaches the range with "sufficient specificity." **The examiner must, in this case, provide reasons for anticipation as well as a motivational statement regarding obviousness.**

MPEP § 2131.03[II] (emphasis added).

1. Unexpected Results

The unexpected result in this case is that, when the weight ratio of the diglycerol with respect to the pigment is not more than 3, the ink is completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper. Application (as published), P. 2-3, ¶ [0021].

It was unknown that adjusting weight ratio of the diglycerol with respect to the pigment to be no more than 3 would enable the ink to be completely solidified when the

water is evaporated, giving the ink excellent sticking performance on the paper. All that was known, as evidenced by Okumura, was that “[i]f the content of the solvent is in excess of 40% by weight, the strike-through of the ink occurs when writing is made on the paper, and drying is unpreferably difficult.” Okumura, Col. 3, Lns. 5-7. It was not known that the amount of solvent, let alone diglycerol, in relation to the amount of pigment also affects an ink’s drying performance on paper. It was only known that the amount of solvent in relation to the entire weight of the ink affects an ink’s drying performance.

Before Applicants’ discoveries, it was unexpected that adjusting the weight ratio of the diglycerol with respect to the pigment to be no more than 3 would enable the ink to be completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper. Because of this unexpected result, Applicants respectfully assert that the narrowly claimed ratio range of not more than 3 is not disclosed with “sufficient specificity” to constitute an anticipation of the claims.

2. No Reason for Anticipation or Motivation for Obviousness

Okumura provides neither reason for anticipation nor any motivation regarding obviousness. First, Okumura never discloses any effect on ink drying or solidification based on the weight ratio of the diglycerol with respect to the pigment. As such there is no reason for anticipation of the unexpected results of the current application that modifying the weight ratio of the diglycerol with respect to the pigment to be no more than 3 ensures that the ink is completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper.

Second, Okumura does not teach solving the problem of sticking performance, let alone solving this problem by ensuring the weight ratio of the diglycerol with respect to the pigment is no more than 3. Rather, Okumura attempts to teach how to improve the lubricating properties of an ink to improve ball point pen writing. Okumira, Col. 1, Lns. 1-51. The only property of a solvent taught by Okumura is that “[i]f the content of the solvent is in excess of 40% by weight, the strike-through of the ink occurs when writing is made on the paper, and drying is unpreferably difficult.” Okumura, Col. 3, Lns. 5-7. This only relates to

the total amount of ink and not to the amount of pigment in the ink. As such, Okumura does not render the narrow claimed ratio range of no more than 3 obvious.

Thus, Applicants respectfully assert that Claim 3 is not disclosed with “sufficient specificity” to anticipate, or render obvious, this claim. Therefore, Applicants respectfully request that Examiner remove the rejection of Claim 3 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,580,374 to Okumura et al.

B. CLAIM 7 UNDER 102(B) AND 103(A)

Claim 7 is dependent upon Claim 3, which is dependant upon Claim 1. As Claim 3 is allowable, so must be Claim 7. In addition, Claim 7 specifies that the “diglycerol is contained by not less than 50% by weight with respect to the total amount of the water-soluble organic solvent including the diglycerol.” 8/4/05 Response to 4/19/05 Office Action, P. 2. Okumura never discloses any relation between the amount of diglycerol in the ink and the amount of any other water-soluble organic solvent contained in the ink, nor does it disclose any example that satisfies this claim limitation. It is therefore respectfully requested that Examiner remove the rejection of Claim 7 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,580,374 to Okumura et al.

C. CLAIMS 12-14 UNDER 102(B)

Claims 12-14 are all dependent from independent Claim 11. Claim 11 was not objected to under 35 U.S.C. § 102(b) as being anticipated. In fact, Examiner specifically stated that Okumura did not disclose all the limitations of Claim 11. See, Office Action (4/21/06), P. 3. Since Examiner admits that Claim 11 is not anticipated by Okumura, neither can be claims 12-14 as they are dependent from Claim 11. Therefore, Applicants respectfully request that Examiner remove the rejection of claims 12-14 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,580,374 to Okumura et al.

D. CLAIM 12 UNDER 103(A)

Claim 12 is dependent upon Claim 11. As Claim 11 is allowable, so must be Claim 12. In addition, Claim 12 specifies that the “weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment is not more than 3.” 8/4/05 Response to 4/19/05 Office Action, P. 3. Okumura never discloses any relation between (1) the amount of polyethylene glycol and diglycerol in the ink and (2) the amount of pigment in the ink, nor does it disclose any example that satisfies this claim limitation.

Okumura never discloses any range for the amount of polyethylene glycol and diglycerol. However, Examiner does content that Okumura teaches

“an aqueous ink composition comprising 2,5-dimercapto-1,3,4-thiadiazole or its salt in the amount 0.01 to 10 percent by weight, a colorant in the amount of 0.05 to 30 present by weight, water in the amount of 40 to 90 percent by weight and a water-soluble organic solvent in the amount of 40 percent by weight or less (abstract and col. 1 lines 53-55). The reference further teaches that the colorant may be a pigment (col. 1 lines 63-66 and col. 2 lines 1-7). The water-soluble organic solvent includes polyethylene glycol and diglycerol (col. 2 lines 50+).”

Office Action (4/21/06), P. 2 (emphasis added).

In asserting that Claim 12 is anticipated and/or rendered obvious, Examiner, in essence, contends that Okumura discloses that the weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment is in the range of 0 to 800 (0/30 to 40/0.05), or, in other words, not more than 800. The current Application claims the narrow range of not more than 3.

As such, Examiner, in effect, argues that while not all combinations of inks disclosed in Okumura fall within the narrowly claimed ratio range of not more than 3 of the current application, some combinations do fall within that range. However, Okumura never discloses any specific examples falling within the claimed narrow range.

The MPEP provides instruction for situations like this:

When the prior art discloses a range which touches, overlaps or is within the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation. ... If the claims

are directed to a narrow range, the reference teaches a broad range, and there is evidence of **unexpected results** within the claimed narrow range ... it may be reasonable to conclude that the narrow range is not disclosed with “sufficient specificity” to constitute an anticipation of the claims. The unexpected results may also render the claims unobvious. The question of “sufficient specificity” is similar to that of “clearly envisaging” a species from a generic teaching. See MPEP § 2131.02. A 35 U.S.C. 102/103 combination rejection is permitted if it is unclear if the reference teaches the range with “sufficient specificity.” **The examiner must, in this case, provide reasons for anticipation as well as a motivational statement regarding obviousness.**

MPEP § 2131.03[II] (emphasis added).

1. Unexpected Results

The unexpected result in this case is that, when the weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment is not more than 3, the ink is completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper. Application (as published), P. 2-3, ¶ [0021].

It was unknown that adjusting weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment to be no more than 3 would enable the ink to be completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper. All that was known, as evidenced by Okumura, was that “[i]f the content of the solvent is in excess of 40% by weight, the strike-through of the ink occurs when writing is made on the paper, and drying is unpreferably difficult.” Okumura, Col. 3, Lns. 5-7. It was not known that the amount of solvent, let alone polyethylene glycol and diglycerol, in relation to the amount of pigment also affects an ink’s drying performance on paper. It was only known that the amount of solvent in relation to the entire weight of the ink affects an ink’s drying performance.

Before Applicants’ discoveries, it was unexpected that adjusting the weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment to be no more than 3 would enable the ink to be completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper. Because of this unexpected result, Applicants respectfully assert that the narrow claimed ratio range of not more than 3 is not

disclosed with “sufficient specificity” to anticipate the claim limitation or to render the claim obvious.

2. No Reason for Anticipation or Motivation for Obviousness

Okumura provides neither reason for anticipation nor any motivation regarding obviousness. First, Okumura never discloses any effect on ink drying or solidification based on the weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment. As such there is no reason for anticipation of the unexpected results of the current application that modifying the weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment to be no more than 3 ensures that the ink is completely solidified when the water is evaporated, giving the ink excellent sticking performance on the paper.

Second, Okumura does not teach solving the problem of sticking performance, let alone solving this problem by ensuring the weight ratio of the polyethylene glycol and the diglycerol with respect to the pigment is no more than 3. Rather, Okumura attempts to teach how to improve the lubricating properties of an ink to improve ball point pen writing. Okumura, Col. 1, Lns. 1-51. The only property of a solvent taught by Okumura is that “[i]f the content of the solvent is in excess of 40% by weight, the strike-through of the ink occurs when writing is made on the paper, and drying is unpreferably difficult.” Okumura, Col. 3, Lns. 5-7. This only relates to the total amount of ink and not to the amount of pigment in the ink. As such, Okumura does not render the narrow claimed ratio range of no more than 12 obvious.

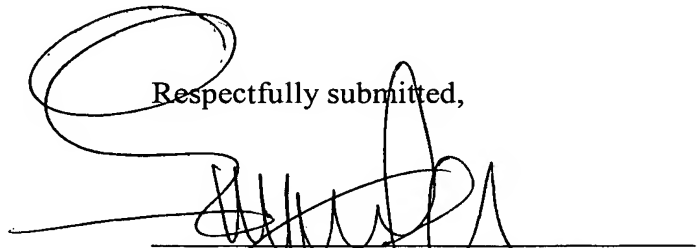
Thus, Applicants respectfully assert that Claim 12 is not disclosed with “sufficient specificity” to constitute an anticipation of this claim limitation or render this claim obvious. Therefore, Applicants respectfully request that Examiner remove the rejection of Claim 12 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,580,374 to Okumura et al.

E. CLAIM 13 UNDER 103(A)

Claim 13 is dependent upon Claim 11. As Claim 11 is allowable, so must be Claim 13. In addition, Claim 13 specifies that the "ink is solidified into a solid matter when the water contained in the ink is evaporated, and the solid matter is redissolved in the ink which is not solidified." 8/4/05 Response to 4/19/05 Office Action, P. 3. As discussed above in relation to Claim 1, Okumura never discloses any example which contains diglycerol, let alone polyethylene glycol and diglycerol, and satisfies the above limitation either explicitly or inherently. In fact, the above limitation is never disclosed, implicitly or otherwise, in Okumura at all. It is therefore respectfully requested that Examiner remove the rejection of Claim 13 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,580,374 to Okumura et al.

Based upon the above remarks, Applicant respectfully requests reconsideration of this application and its early allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Eugene LeDonne', is written over a horizontal line. The signature is stylized with large, sweeping loops.

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